

1154-47-191

**Cheng Chu\*** (chengchu813@gmail.com), Quebec City, QC , Canada. *Reducing Subspaces of de Branges-Rovnyak Spaces.*

The de Branges-Rovnyak spaces are Hilbert spaces contractively contained in the Hardy space of the unit disk that are invariant by the backward shift operator.

We consider the square of backward shift operator when restricted to a de Branges-Rovnyak space, and study its reducing subspaces. In a special case, this operator is a truncated Toeplitz operator acting on a model space, and its reducibility was characterized by Douglas and Foias using model theory. We use a function theoretical approach to extend their result to more general cases. (Received August 21, 2019)